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APPLICATION NO. 05/470,577	FILING DATE 05/05/97	FIRST NAMED INVENTOR THOMAS J. SCOTT JR.	ATTORNEY DOCKET NO. 05/470,577
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EXAMINER F. J. G. J.
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ART UNIT 2891	PAPER NUMBER 2
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DATE MAILED:

02/05/97

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
**08/470,571**

Applicant(s)  
**Harvey et al**

Examiner  
**James Groody**

Group Art Unit  
**2619**



☒ Responsive to communication(s) filed on 6/6/95, 1/30/96 and 3/26/96

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 56-88 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 56-88 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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**Part III DETAILED ACTION**

1. This action is in response to the amendment(s) filed 6/6/95, 1/30/96 and 3/26/96.

2. This action will not attempt to determine the effective filing date of this application. The action will apply art against the claims using two possible effective filing dates, i.e. serial number 06/317,510, filed November 3, 1981, and serial number 07/096,096, filed September 11, 1987. Applicants can overcome the art rejections by establishing that the art applied does not meet the claimed limitations or that the art does not have an early enough filing date.

The action will make initial double patenting rejections presuming that all of the present claims were fully disclosed in both the '81 and '87 cases.

In any rejections made under 35 U.S.C. 112, first paragraph, applicants will be asked to clarify, where required by the examiner, how the present claims are fully disclosed in both the '81 and '87 cases.

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3. Applicants are reminded of their duty to maintain a line of patentable demarcation between related applications. It has been noted by the PTO that many of the pending applications have similar claimed subject matter. In the related 327 applications (the serial numbers are included in a list below), it is estimated that there may be between 10,000 and 20,000 claims. Applicants should insure that substantially duplicate claims do not appear in different cases, and should bring to the PTO's attention instances where similar claims have been treated inconsistently, i.e. rejected in one case but not in another.

4. Applicants are cautioned that their continual use of alternatives in the claims raises questions concerning the exact claim meaning. More importantly, it raises questions whether the disclosure supports every possible embodiment or permutation that can be created by the alternative language.

5. The double patenting rejections in this action are based on the premise that all of the present claims were fully disclosed in U.S. Patents 4,694,490; 4,704,725; 4,965,825; and 5,109,414.

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Since there was a restriction made in 5,233,654, there will be no double patenting made on that patent or 5,335,277.

6. The PTO's copies of the parent files are in poor form since they have been copied many times by members of the public. The files also are missing some of the papers. The double patenting rejections below presumes that there were no requirements for restriction made in any of the parent files.

7. There are three types of double patenting rejections:

- a) Statutory double patenting rejection under 35 U.S.C. 101,
- b) Nonstatutory obvious type double patenting,
- c) Nonstatutory non-obviousness type double patenting.

In this action, the rejections of the third type that are directed to the claims of the parent patented files will have two different versions. The first rejects the claims because they have not been established to be independent and distinct from the patented claims. The second version includes that premise, and further supports the rejection by establishing that

representative claims from this application have common subject matter with representative ones of the patented claims.

8. Claims 56-88 (all of the claims in this application) are rejected under the judicially created doctrine of non-obviousness non-statutory double patenting over the patented claims in U.S. Patents 4,694,490; 4,704,725; 4,965,825; and 5,109,414 since the claims, if allowed, would improperly extend the "right to exclude" already granted in those patents.

The subject matter claimed in the instant application is fully disclosed in the patents and is covered by the patents since the patents and the application are claiming common subject matter, as follows: a signal processing apparatus and method including an interactive communications system apparatus and method. Furthermore, there is no apparent reason why applicants were prevented from presenting claims corresponding to those of the instant application during prosecution of the parent applications which matured into patents. *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

A review of the claims in each of the four parent patents (5,109,414; 4,964,825; 4,704,725; 4,694,490) was made. These

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patented claims do not appear "independent and distinct" from the claims in this application. The present claims are directed to a method and apparatus for controlling communications including television communications or programming. The claims in patent 5,109,414 were directed to a processing system and method for signal distribution including television. The claims in patent 4,965,825 were directed to a system and process for signal processing including carrier communications. The claims in patent 4,704,725 were directed to a method of communicating data to receiver stations. The claims in patent 4,694,490 were directed to a method for communicating and processing television programs.

Applicants' invention can be envisioned at in three parts. As with most cable TV systems, there is a head end station which generates the video programming. Applicants have included an intermediate station which receives transmissions, from the head end or subscriber stations, and distributes the programming to each subscriber. The subscriber station receives the programming, and can communicate to the intermediate station with requests or instructions. Even if the claims directed to each station were "independent and distinct" from the claims directed

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to the other stations, there would be no reason to "restrict" between the three stations since their overall function is so interrelated that the stations have the same search area, i.e the PTO could not establish a burden if required to search for all three stations.

It is believed that CCPA in *Schneller* used the "independent and distinct" standard as the main factor in its determination that the double patenting rejection should be affirmed. The CCPA stated that the fundamental reason supporting the principle of non-statutory double patenting rejections is to prevent unjustified timewise extension of the right to exclude granted by a patent no matter how the extension is brought about. Further the CCPA stated at 158 USPQ 210 (214):

"... To conform to this reason and to prevail here, appellant has the burden of establishing that the invention in his patent is "independent and distinct" from the invention of the appealed claims. The public policy considerations underlying 35 U.S.C. 121 permit separate patents on "independent and distinct" inventions which are initially "claimed in one application." The statute places initial responsibility for this determination on the Commissioner of Patents. Where, as here, no such determination has been made, it is necessary to scrutinize carefully an applicant's voluntary alleged determination of this issue for it can lead to the improper proliferation of patents on the same invention with the inherent result of extending timewise a patentee's right to exclude others from



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the invention disclosed in the original application and on which his patent has issued."

The CCPA further stated at page 215 the length of time between an earlier patent and a later filed application should be considered. The filing date of this application was over seven years after the first patent issued (serial number 06/317,510, filed November 3, 1981, patented as 4,694,490 on September 15, 1987) and over four years after the first CIP issued as a patent (serial number 07/096,096, filed September 11, 1987, patented as 4,965,825 on October 23, 1990).

To the extent that one would view *Schneller* and *In re Kaplan*, 789 F.2d 1574, 229 USPQ 678 (Fed. Cir. 1986) to be in conflict, it is clear that *Schneller* is the controlling precedent to the factual situation here. In *Schneller*, the Court specifically distinguished a situation of the same applicant from one where the application and patent had different inventive entities. In *Kaplan*, the inventive entities between the patent and application were different, as was required at the time of the *Kaplan* invention, since *Kaplan*'s filing date was before the Patent Law Amendments Act of 1984. In this present case, as with *Schneller*, the inventive entities of the application and patent

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are the same. Clearly, Kaplan was required, or entitled, to file separate applications, whereas applicants and Schneller did not have reason to do so. Finally, decisions of a three-judge panel of the Federal Circuit cannot overturn prior precedential decisions of the CCPA. See *UMC Elec. Co. v. United States* 2 USPQ2d 1465.

9. Claims 56-88 (all of the claims in this application) are rejected under the judicially created doctrine of non-obviousness non-statutory double patenting over the patented claims in U.S. Patents 4,694,490; 4,704,725; 4,965,825; and 5,109,414 since the claims, if allowed, would improperly extend the "right to exclude" already granted in those patents.

This rejection incorporates the rejection above. That double patenting rejection is further supported by *Schneller* because the great majority of the patented claims are "comprising" type claims.<sup>1</sup> While it is recognized that the specific claim limitations in the application may not have been

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<sup>1</sup>The claims that recite neither "comprising" nor "consisting" are considered to recite open claim language, i.e. equivalent to "comprising". See, for example, claim 1 of Patent 5,109,414.

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claimed in the patents, this alone does not establish grounds for overcoming this rejection. The patent claims were directed to parts of applicants' total disclosed system or process.

Therefore the recitation of "comprising" enables those patented claims to "cover" claim features now recited by applicants' present application claims.

Since the head end, intermediate, and subscriber stations are part of the overall system, claims to one part "cover" the other part(s) under the *Schneller* decision (page 215), since the preferred embodiment would include all three parts of the main system, i.e. head, intermediate, and subscriber stations. For example, claims to the subscriber station still cover the intermediate station because the subscriber station would be processing information that had to come from the intermediate station. A second example would be that claims to one aspect or function of the intermediate station would cover the invention of another aspect or function of the intermediate station since both functions could be performed with the other. Applicants' disclosed system includes similar features in the head, intermediate, and subscriber stations. For example, the stations can transmit and receive, and have computer, processor and

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controller capabilities. For that reason, the disclosure will permit broadly drafted claims to read on either the head, intermediate, or subscriber station. Patent claims that recite receiving and transmitting can cover both intermediate and subscriber stations. The fact that patent claims and application claims are directed to different elements does not prohibit this rejection if there is common or interrelated subject matter recited. The Court in *Schneller* stated at page 215:

"... They "cover" the preferred form ABCXY, common to the patent and this application, in the same sense. The fact that X and Y are distinct elements, performing, independent functions, so that either can be employed without the other, does not change this fact. Neither does appellant's omission of reference to the lip Y from his patent claims."

Application claim 84 is a representative claim. It is directed to a method of delivering a video presentation at at least one of a plurality of receiver stations by receiving video, delivering the video to a transmitter of a transmitter station, receiving one or more instruct signals, transferring the one or more instruct signals to the transmitter, and transmitting the video and one or more instruct signal, wherein the one or more instruct signals cause at least one of the receiver stations to deliver a combined or sequential presentation of video and at least one of

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(1) one or more receiver specific data and (2) one or more data described or promoted in the video.

A review of representative ones of the patented claims will demonstrate that the patented claims cover the invention claimed in this application:

a) In patent 4,694,490, claim 7 is representative of the claimed method for communicating TV program information to a receiver station. The receiver station receives the video data, displays it, detects the presence of overlay information using an instruct signal, and has computers generate and transmit this overlay info to the display.

b) In patent 4,704,725, claim 3 is representative, and, as summarized below, recites a method of communicating data comprising:

- a) multiple receivers, each with a computer,
- b) transmitting instruct to transmit signals to the computers,
- c) detecting the signals and coupling them to the selected computers,
- d) having the computers control their own selected output device.

c) In patent 4,965,825, claim 24 is representative, and, as summarized below, recites generating a computer output having the steps of:

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- a) having multiple receivers, each with a computer,
  - b) transmitting an instruct to generate signal to the computers,
  - c) causing the computers to generate individual user output information.
- d) In patent 5,109,414, claim 15 is representative, and, as summarized below, recites a signal processing system (including):

- a) receiver/distribution means,
- b) switch means,
- c) control signal detector means for transferring data to storage means,
- d) storage means for storing and transferring data to processor means,
- e) processor means for controlling.

While claim 15 is an apparatus claim, a method claim and apparatus claim do not in themselves establish groups that are "independent and distinct".

The patented claims are also primarily directed to methods or structure to control element(s) either directly at that station or at another remote station. This control is generally completed with the reception or recognition of an instruct signal. The same common concept exists in application claim 84. All of the claims, both patented and pending in this application, when considered together, effectively recite parts of the preferred embodiment, i.e. a head, intermediate, and subscriber

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station. The patented claims "cover" the claims of the application because the patented limitations do not exclude the limitations of this application.

In the arguments above, the examiner, when discussing several of the patents, stated that the patented claims were broad enough to read on multiple stations. While it is believed this analysis is correct, it is not critical to this rejection. Since the patented claims recite limitations that are interrelated with other similar features claimed in this application, it is the examiner's position that those patented claims "cover" the application claims because all of these claimed features (both in the patent and application) describe what is effectively the preferred embodiment.

The claims in this application, if allowed without a terminal disclaimer, would continue patent protection of the preferred embodiment, i.e. the complete system of the head, intermediate, and subscriber stations, beyond the expiration of applicants' parent patents.

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10. It is acknowledged that a multiplicity rejection was mailed on July 27, 1989 in parent file 07/096,096. In this rejection, the examiner had limited the applicants to 25 claims.

*Schneller* did not equate a multiplicity rejection with a restriction requirement as a permissible exception to being subject to the non-obvious non--statutory double patenting rejection. For that reason, this action will not overturn the legal reasoning in *Schneller* which supports the non-statutory non-obviousness double patenting rejection above.

It is believed, however, that applicants arguments on this multiplicity issue can be better supported if a nexus is established between the claims of this application and those that were canceled in 07/096,096 in response to the multiplicity requirement.

Notwithstanding the comment above, at the time the examiner made the multiplicity rejection, there was a body of case law that had overturned similar rejections. Note *In re Flint* 162 USPQ 228 (CCPA 1969) and *In re Wakefield*, 164 USPQ 636 (CCPA 1970).



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11. A determination of a possible non-statutory double patenting rejection obvious-type in each of the related 327 applications over each other will be deferred until a later time. This action is taken in view of the possibility that many of these applications may be abandoned or merged.

12. Claims 56-88 are rejected under the judicially created doctrine of double patenting over the claims of copending U.S. application 08/113,329 and the following related U.S. applications (all of the applications are series 08):

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#	Ser. No.	#	Ser. No.	#	Ser. No.
1	397371	2	397582	3	397636
4	435757	5	435758	6	437044
7	437045	8	437629	9	437635
10	437791	11	437819	12	437864
13	437887	14	437937	15	438011
16	438206	17	438216	18	438659
19	439668	20	439670	21	440657
22	440837	23	441027	24	441033
25	441575	26	441577	27	441701
28	441749	29	441821	30	441880
31	441942	32	441996	33	442165
34	442327	35	442335	36	442369
37	442383	38	442505	39	442507
40	444643	41	444756	42	444757
43	444758	44	444781	45	444786
46	444787	47	444788	48	444887
49	445045	50	445054	51	445290
52	445294	53	445296	54	445328
55	446123	56	446124	57	446429
58	446430	59	446431	60	446432
61	446494	62	446553	63	446579
64	447380	65	447414	66	447415
67	447416	68	447446	69	447447
70	447448	71	447449	72	447496
73	447502	74	447529	75	447611
76	447621	77	447679	78	447711
79	447712	80	447724	81	447726
82	447826	83	447908	84	447938
85	447974	86	447977	87	448099
88	448116	89	448141	90	448143
91	448175	92	448251	93	448309

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#	Ser. No.	#	Ser. No.	#	Ser. No.
94	448326	95	448643	96	448644
97	448662	98	448667	99	448794
100	448810	101	448833	102	448915
103	448916	104	448917	105	448976
106	448977	107	448978	108	448979
109	449097	110	449110	111	449248
112	449263	113	449281	114	449291
115	449302	116	449351	117	449369
118	449411	119	449413	120	449523
121	449530	122	449531	123	449532
124	449652	125	449697	126	449702
127	449717	128	449718	129	449798
130	449800	131	449829	132	449867
133	449901	134	450680	135	451203
136	451377	137	451496	138	451746
139	452395	140	458566	141	458699
142	458760	143	459216	144	459217
145	459218	146	459506	147	459507
148	459521	149	459522	150	459788
151	460043	152	460081	153	460085
154	460120	155	460187	156	460240
157	460256	158	460274	159	460387
160	460394	161	460401	162	460556
163	460557	164	460591	165	460592
166	460634	167	460642	168	460668
169	460677	170	460711	171	460713
172	460743	173	460765	174	460766
175	460770	176	460793	177	460817
178	466887	179	466888	180	466890
181	466894	182	467045	183	467904
184	468044	185	468323	186	468324
187	468641	188	468736	189	468994

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#	Ser. No.	#	Ser. No.	#	Ser. No.
190	469056	191	469059	192	469078
193	469103	194	469106	195	469107
196	469108	197	469109	198	469355
199	469496	200	469517	201	469612
202	469623	203	469624	204	469626
205	470051	206	470052	207	470053
208	470054	209	470236	210	470447
211	470448	212	470476	213	470570
214	*****	215	471024	216	471191
217	471238	218	471239	219	471240
220	472066	221	472399	222	472462
223	472980	224	473213	225	473224
226	473484	227	473927	228	473996
229	473997	230	473998	231	473999
232	474119	233	474139	234	474145
235	474146	236	474147	237	474496
238	474674	239	474963	240	474964
241	475341	242	475342	243	477547
244	477564	245	477570	246	477660
247	477711	248	477712	249	477805
250	477955	251	478044	252	478107
253	478544	254	478633	255	478767
256	478794	257	478858	258	478864
259	478908	260	479042	261	479215
262	479216	263	479217	264	479374
265	479375	266	479414	267	479523
268	479524	269	479667	270	480059
271	480060	272	480383	273	480392
274	480740	275	481074	276	482573
277	482574	278	482857	279	483054
280	483169	281	483174	282	483269
283	483980	284	484275	285	484276

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#	Ser. No.	#	Ser. No.	#	Ser. No.
286	484858	287	484865	288	485282
289	485283	290	485507	291	485775
292	486258	293	486259	294	486265
295	486266	296	486297	297	487155
298	487397	299	487408	300	487410
301	487411	302	487428	303	487506
304	487516	305	487526	306	487536
307	487546	308	487556	309	487565
310	487649	311	487851	312	487895
313	487980	314	487981	315	487982
316	487984	317	488032	318	488058
319	488378	320	488383	321	488436
322	488438	323	488439	324	488619
325	488620	326	498002	327	511491
328	485773				

The subject matter claimed in the instant application is fully disclosed in the referenced copending applications and would be covered by any patent granted on that copending applications since the referenced copending applications and the instant application are claiming common subject matter, as follows: a signal processing apparatus and method including an interactive communications system apparatus and method.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending applications. In re

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*Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

A review of the claims in the related copending applications was made. These claims do not appear independent and distinct from the claims in this application. It is believed that CCPA in *Schneller* used the "independent and distinct" standard as the main factor in its determination that the double patenting rejection should be affirmed. The relevant arguments in the preceding paragraphs in support of this position are incorporated herein.

13. The non-statutory double patenting rejection, whether of the obvious-type or non-obvious-type, is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent. *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Van Ornam*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); and *In re Goodman*, 29 USPQ2d 2010 (Fed. Cir. 1993).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321 (b) and (c) may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.78 (d).

Effective January 1, 1994, a registered attorney or agent of record may sign a Terminal Disclaimer. A Terminal Disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 56-88 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regards as the invention.

The examiner must be able to determine the meets and bounds of the claims to perform an effective search and analysis over the art. The examiner is not certain that the meets and bounds of these claims can be determined because of the language in the disclosure and claims. For example, the disclosure teaches many transmitter and receiver stations, instruct signals, control signals, decoders, etc. (This is just a partial list of terms in

applicants' disclosure that apply to plural elements in that disclosure.) When these phrases are claimed, the examiner needs to know "which" element in the disclosure is performing the claimed step. For example, when a hypothetical claim recites "transmitter station", and the disclosure teaches different ones (those in the origination, intermediate, and subscriber stations), the examiner needs to be able to envision what applicants could be claiming.

Applicants' assigned multiple meanings to words in a claim makes a claim indefinite.

Traditionally, examiners "diagram" claims to determine the meets and bounds. To explain what "diagraming" means, the examiner attempts to draw a picture (generally a circuit or a connection of block elements in an electrical application) which represents what was claimed so that the examiner can visualize how a mythical reference could anticipate the claim, if the claim was given its broadest reading. If the claim recites terms or phrases that have multiple meanings in the disclosure, the examiner can't determine whether the diagram of the claim is correct. Given this, how can the examiner determine whether or



not the scope of the art searched for is commiserate with the broadest reading of the claim?

Admittedly, the size of applicants' disclosure with its numerous possible implementations is contributing to the problem, but the problem does exist. Applicants are being requested to reference the claim limitations in this application to the disclosure so that the meets and bounds of these claims can be properly considered. This can be done in a remarks section, the claims do not have to be amended.

15. Claims 67, 75, 80, and 84 are objected to because of the following informalities:

- (i) In claim 67, line 2, a comma should follow "executable code".
- (ii) In claim 75, line 1, "at" is repeated.
- (iii) In claim 75, line 2, "and" should be inserted following "a processor,".
- (iv) In claim 75, line 7, "is" should be changed to "are".
- (v) In claim 80, line 1, "at" is repeated.
- (vi) In claim 80, line 2, "and" should be inserted following "a processor,".
- (vii) In claim 80, line 5, it appears that "to" should be inserted between "video" and "be".

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(viii) In claim 84, line 1, "at" is repeated.

(ix) In claim 84, line 2, "and" should be inserted following "a processor,".

Appropriate correction is required.

16. Claims 56-74, 77-79 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 56:

The terms "said step of prompting said customer" (lines 5-6) and "said requested transaction" (lines 18 and 19) lack antecedent basis, rendering the claim indefinite. In addition, stating that the interactive video apparatus has a "method or device for communicating said processed reply" (lines 10-11) is confusing, as it is unclear whether the claim is directed to a method or an apparatus. Furthermore, the term "receiver/processor/transmitter sites" is confusing. It is unclear what the network is comprised of -- the applicant is advised against using "/" in this manner.

With respect to claim 57:

The term "said one or more signal words" lacks clear antecedent basis, rendering the claim indefinite. "One or more signal words" was listed of one of two choices to be processed -- any reference to "said one or

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more signal words" contradicts the earlier alternative reference. In addition, the term "said one or more instructions" lacks clear antecedent basis.

With respect to claims 61 and 62:

The term "said designated executable code" lacks antecedent basis, rendering these claims indefinite.

With respect to claim 64:

The term "said receiver station" lacks antecedent basis, rendering these claims indefinite.

With respect to claim 67:

The terms "said selected specific output" and "said selected specific output device" lack antecedent basis, rendering these claims indefinite.

With respect to claim 69:

The term "said subscriber reply" (lines 6 and 8-9) lacks antecedent basis, rendering these claims indefinite. In addition, the term "one or more of said one or more instructions" is confusing. It seems impossible to determine the scope of this term. How can the processing be in response of more than one instruction if only one instruction is present (one of the possibilities for the number of instructions)?

With respect to claim 71:

The term "videoming" (line 5) is confusing.

With respect to claim 77:

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The term "said downloadable executable code" lacks antecedent basis, rendering the claim indefinite.

With respect to claim 78:

The terms "said downloadable executable code" and "said receiver station" lack antecedent basis, rendering the claim indefinite. The receiver station was referred to in claim 75 as "at least one of a plurality of receiver stations" -- a specific receiver station does not appear to be referred to in the claim.

With respect to claim 79:

The term "said downloadable executable code" lacks antecedent basis, rendering the claim indefinite.

Claims 58-60, 63, 65, 66, 68, 70, 72-74 are rejected as being dependent upon a base claim rendered indefinite above.

17. The rejections based on prior art under 35 U.S.C. §§ 102 and 103 were made based upon the examiner's understanding of the scope of the claims. Any amendments to overcome the rejections under 35 U.S.C. § 112 that change the examiner's understanding of the scope of the claims may necessitate new grounds for rejection.

***Claim Rejections - 35 USC § 102***

18. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

19. Claims 56-74 are rejected under 35 U.S.C. § 102(b) as being anticipated by Campbell et al. (4,536,791).

With respect to claim 56:

Campbell discloses an addressable cable TV control system that anticipates the claimed method. Specifically, the pay-per-view premium feature of Campbell discussed on col. 17, lines 42-64 reads on the claimed method, including displaying video that describes or promotes a transaction (the printed message prompting the user to enter the appropriate key number "promotes" the transaction), the interactive video having an input device (keyboard 168); receiving a reply from a customer (the user enters the key number), the interactive video apparatus having a processor (microprocessor unit 410) as claimed; processing said reply and selecting a code or datum designating said

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transaction and communicating said selected code or datum to a remote site (when the key number is entered correctly, the converter 40 requests the central data control system 12 at the head end to authorize the reception of the channel, also passing along appropriate transactional information for billing purposes), said interactive video apparatus and said remote site comprising a network of receiver/processor/transmitter sites; delivering one or more processor instructions at said interactive video apparatus; and delivering the requested transaction (the data control system commands the converter to allow or disallow the selected program, see col. 17, lines 61-64).

Note: the printed message prompting the user to enter the appropriate key number is considered to "promote" the transaction.

With respect to claim 57:

The channel control word 200 including a descrambling code 208 and the other signal words are considered to read on the claimed "one or more processor instructions". The one or more instructions enable the interactive video apparatus to process one or more signal words (see Fig. 11), and the claimed method further includes the step of receiving a cablecast transmission containing a video graphic (the program) one or more instructions.

With respect to claim 58:

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Campbell further anticipates the claimed step of processing user input based on said generated control signal (the user input is compared to the user key number).

With respect to claim 59:

Upon the entering of the correct key number and authorization of the selected program, the program is descrambled by the video descrambler 116 (this follows from the discussion in columns 8 and 9). This reads on the step of controlling a decryptor.

With respect to claim 60:

The microprocessor 410 and the memory 130 constitute the claimed "computer". The data stored in memory 130 is outputted to a TV for display. The discussion at col. 9, lines 35-37 and col. 17, lines 28-31 indicates that the data from the memory can be displayed with the video signal.

With respect to claim 61, 62, 65 and 67:

Fig. 11 illustrates a plurality of codes or instructions. Since these codes are executed (e.g., by comparing Fig. 12) by the processor 104, they can be considered as "executable codes". In addition, since each receiver station contains a processor 104, when the identified receiver station receives the instructions (Fig. 11), it can be considered as "the instructions to a specific processor". The discussion at col. 18, lines 13-19 indicates that usage data or monitored data is communicated to a remote location.

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With respect to claim 63:

The user inputs a key number which eventually generates an output after authorization. This reads on designating a specific user input to process and generating an output by processing said specific user input.

With respect to claim 64:

The method discussed above with respect to claim 56 (col. 17, lines 42-64) anticipate the claimed steps.

With respect to claim 66:

The billing information that is transmitted to a remote data collection center (the data control system 12) identifies a use of programming, and reads on the claimed limitations.

With respect to claim 68:

Campbell anticipates the claimed limitations, as should be clear from Figs. 1 and 6. The cable TV signal is a multichannel signal transmitted by a remote cable station (the cable head end 11) and the tuner 106 is tuned to receive the instructions.

With respect to claim 69:

The method of Campbell includes sending information to the remote data collection center after the key number is entered by the user, the information being used to authorize the transmission and for billing purposes. This reads on the step of assembling and communicating to a remote data site data evidencing the subscriber reply.

With respect to claim 70:



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The subscriber in Campbell chooses to watch a specific video (the pay-per-view premium program). As this instruction is first compared to a key number and then used for billing purposes, it is inherent that the instruction is stored so that the system has a record of it.

With respect to claim 71:

The addressable converter 40 of Campbell, which receives embedded control signals from a remote source, detects them, and processes the signals appropriately anticipates the claimed steps.

With respect to claims 72 and 73:

The instructions of Campbell are embedded in a non-visible portion of a television signal containing the video (see Figs. 2A and 11).

With respect to claim 74:

It is clear from the disclosure of Campbell that the data can include text that is embedded in the video signal.

20. Claims 75-79 are rejected under 35 U.S.C. § 102(b) as being anticipated by Hedger ("Broadcast Telesoftware: Experience with ORACLE", 1980).

With respect to claim 75 and 79:

Hedger discloses a telesoftware system that anticipates the claimed method, the system including a plurality of receiver stations (terminals), each of which include a receiver, a signal detector, a processor, and an output device (see paragraph 2.1 and Fig. 1). The

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terminal receives downloadable executable code or software and generates video in response (see, *inter alia*, paragraphs 4.1, 4.3, and 4.4). It is inherent that the code is transmitted by a transmitter station upon user request of a particular program (such as mortgage calculation, games, education, etc.). This reads on the claimed method.

With respect to claim 76:

The discussion in paragraph 4.4 anticipates the sequential output of video image and a video presentation.

With respect to claim 77:

The downloadable executable code is teletext that is embedded in video signals.

With respect to claim 78:

The above discussion of claim 76 applies to claim 78 with the output being a sequential output of video/text and a video image.

21. Claims 80 and 82 are rejected under 35 U.S.C. § 102(b) as being anticipated by Gimple et al. (4,430,731).

With respect to claim 80:

Gimple discloses video and data distribution system including a plurality of receiver stations (subscriber terminal units 10), each of which includes a receiver and a signal detector (modem 18, Fig. 2A or modem 501, Fig. 8, see col. 17, lines 44-62), a processor (CPU 521), and an output device (television set 503 or video screen 576), with each

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receiver station adapted to detect the presence of one or more instruct or control signals (see col. 2, lines 32-49). The system of Gimple anticipates the claimed method of receiving video to be transmitted by a remote intermediate transmitter station (the remote video data distribution modules 8), said video having an instruct signal (see col. 3, lines 49-52); receiving one or more control signals which at the remote intermediate transmitter station operate to control the communication of the video; and transmitting said one or more control signals to a transmitter (transceivers 731) before a specific time, wherein the specific time is the time the signal (program) is to be received by the subscriber. Refer to the discussion in cols. 3 and 4.

With respect to claim 82:

The control signals in the system of Gimple are embedded in the DS-1 frame and are stripped out before the video is viewed by the subscriber. This reads on the claimed limitation.

***Claim Rejections - 35 USC § 103***

22. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said

subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

23. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

24. Claims 81 and 83 are rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103 as obvious over Gimple et al. (4,430,731).

With respect to claim 81:

It appears inherent to Gimple that the control signals would include a code or datum which operate to identify the video being transmitted for billing purposes; if not, it would certainly have been obvious to one of ordinary skill in the art at the time of the invention to use such control signals so that the subscriber may be billed accurately. The system of Gimple includes control signals that perform synchronization -

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- this reads on the claimed second control signal. Refer to the discussion in columns 3-6.

With respect to claim 83:

It appears inherent that the system of Gimple would have a schedule according to which video programs are transmitted to the subscribers; if not, it would certainly have been obvious to one of ordinary skill in the art at the time of the invention to use such a schedule so that the subscribers would be aware of what programs could be viewed at what times.

25. Claims 84-86 are rejected under 35 U.S.C. § 103 as being unpatentable over Gimple et al. (4,430,731) in view of Millar et al. (British Patent Specification 1 370 535).

With respect to claim 84:

The rejection follows from the above discussion of claim 80. The only additional limitation is the delivery of a combined or sequential presentation of the video and either one or more receiver specific data or one or more data described or promoted in said video. Gimple discusses displaying alphanumerics at the bottom of the television screen, but does not specifically mention that the alphanumerics would be related to the video. Millar discusses the display of text and video simultaneously so as to show captions that enable, for example, the deaf to watch TV effectively (see page 1, lines 9-24). It would have been

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obvious to one of ordinary skill in the art at the time of the invention to display sub-titles as suggested by Millar on the TV screen of the subscriber in Gimple since this would enable deaf viewers to better understand the video. This renders obvious the delivery of a combined presentation of video and one or more data described in said video.

With respect to claim 85:

The rejection follows from the above discussion of claim 82.

With respect to claim 86:

The programs in Gimple are broadcast to the different subscribers at the same time, who receive them at the same time.

26. Claims 87 and 88 are rejected under 35 U.S.C. § 103 as being unpatentable over Gimple et al. (4,430,731) in view of Millar et al. (British Patent Specification 1 370 535) as applied to claims 84-86 above, and further in view of Lambert (4,381,522). In the system described above with respect to claim 84, all programs are transmitted to the different subscribers at the same time. Lambert, however, discloses a system in which the user is able to select what time he or she wishes to view a program. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a system as suggested by Lambert in which a user could select what time to watch a particular program since this frees up the user from having to set his or her schedule according to when certain programs are being broadcast.

Such a system renders obvious the steps of transmitting video to a plurality of receiver stations at different times (claim 87) and storing a video signal before transmitting it to a subscriber (claim 88).

27. Claims 75-79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zaboklicki (DE 2904981) in view of "A Public Broadcaster's View of Teletext in the United States" by Hartford Gunn (hereinafter "Gunn").

Zaboklicki in Figs. 1 and 3 illustrates a receiver station which includes a television receiver (54, 56), a signal detector (3, 40), and a processor 6. The receiver station receives digital processing program or telesoftware ("downloadable executable processor instructions") and one or more address data, control commands, and fragments identifications. The CPU 6 uses the downloaded digital processing program or telesoftware ("downloadable executable processor instructions") to control the operation of the receiver station (page 10, lines 17-19 and page 16, lines 1-3). Therefore, the downloaded digital processing program are effective to output a specific portion of video portion (e.g., outputting the TV segment identified by the segment ID, page 10, lines 13-18). The steps of receiving and transferring at the transmitter station are inherently steps of Zaboklicki since the receiver station receives both the digital processing program or telesoftware ("downloadable executable codes") and one or more address

data, control commands and fragments identifications. That is, in order for the transmitter station to transmit the telesoftware. It must be first received by the transmitter station and then transferred to a transmitter of the transmitter station for transmission.

Zaboklicki differs from claim 75 of the present invention in that Zaboklicki does not specifically disclose downloading one or more control signals for operating to execute the telesoftware. However, as taught by Gunn (on page 5, lines 1-9), providing a teletext activation signal for activating or executing a software is well known in the art. As Zaboklicki on page 21, line 22 clearly indicates that his system is capable of extracting teletext information, it would have been obvious to an artisan of ordinary skill at the time of the invention to modify the system of Zaboklicki to send a teletext activation signal as taught by Gunn in order allow the system of Zaboklicki to activate the downloaded digital processing program or telesoftware ("downloadable executable processor instructions") remotely. The teletext activation signal ("one or more control signals") is transmitted from the transmitter station. Therefore, it must be first received by the transmitter station and then transferred to a transmitter of the transmitter station for transmission.

Regarding claim 76, since the receiver station receives TV segments ("video image"), the received TV segments must be transmitted by the transmitter station (Page 10, lines 13-18). Regarding claim



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77, the discussion on page 21, line 22 of Zaboklicki indicates teletext information. In a teletext system, information inherently embedded in the vertical blanking interval of a TV signal.

Regarding claim 78, Zaboklicki also shows a TV receiver 54 for displaying TV signals and input device (Fig. 4) for receiving "viewer reactions" to select information. The discussion on page 9, line 18 also discloses the "supplementary information".

Regarding claim 79, the modified system of Zaboklicki and Gunn uses the teletext activation signal to execute the downloadable executable processor instructions (software). Therefore, it can be considered as "incorporate at least some of said downloadable executable codes".

28. A series of interviews were held before prosecution began on this application. Unless identified specifically below in this part of the action, these interviews did not address the merits of any single application, but rather issues that are appropriate to all of the related "Harvey" applications.

The first interview was held on August 13, 1995. It was a personal interview. Attending were one of the applicants, Mr. Harvey, and his attorneys, Messrs. Scott and Woolston. Representing the PTO were Messrs. Godici, Yusko, Orsino, and

Groody. Mr. Harvey and his attorneys were informed that because of the large number of related applications, the examination would be performed by a team of examiners. As of the August 1995 interview there existed a problem with some of the applications being charged large entity fees when applicants believed that small entity status was deserved. The PTO has referred this matter to the Office of Assistant Commissioner of Patents, specifically Hiram Bernstein, a petitions attorney. Mr. Harvey's representatives will attempt to resolve this issue through Mr. Bernstein. At this time all of the related cases had not been received in the Group. No examination was planned until at least late October because the team members were managers, and needed to complete other end of fiscal year assignments and all employee performance ratings. The PTO requested that any amendments to the specification, other than to correct continuing status, be delayed. Mr. Harvey's representatives stated that no other amendments to the specification were actually planned. The PTO's goal will be to attempt to reduce the amount of paper passed between applicant and PTO since the cases are related and very difficult to move from cite to cite because of their size. Copies of the prior art only need to be filed once. The PTO will

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only send newly cited art once. Preliminary amendments are being prepared. The PTO however cautioned that the prosecution of the applications will not be delayed until applicants have filed these amendments. The PTO requested a chart establishing any relationships between cases and what parts of applicants' disclosure related blocks of cases were directed to. It was not, at this time, determined whether this chart would become part of the official file. The PTO planned to research this. It was the PTO's intent to examine related cases simultaneously. The PTO welcomed any claim amendments to include resubmissions of all claims, whether amended or not. Mr. Harvey's representatives were informed that the issue of double patenting was expected to be a major issue.

On November 2, 1995, a telephonic interview was held between Mr. Woolston and Mr. Groody. Mr. Woolston indicated that two prior art statements were being completed, one for cases with a 1987 effective date, the other for cases with a 1981 effective date.

On November 30, 1995, a personal interview was held. Representing applicants were Messrs. Scott, Woolston, and Grabarek. Representing the PTO were Messrs. Yusko, Orsino, and

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Groody. The content of a simultaneously filed prior art statement was discussed. The PTO's copies of the parent files are missing the non-U.S. patents cited therein. The PTO requested copies of those prior art documents. Applicants gave the PTO a document showing which cases have already been amended. Since this document merely shows the status of any amended application, it has not been made part of the file record since that paper has no bearing on the merits of any issue before the PTO.

A second interview was held on later on November 30, 1995 between Mr. Scott and Mr. Groody. The sole topic discussed was double patenting. The discussion led to no conclusions on whether a double patenting rejection would be made in these applications.

An interview was held on December 6, 1995 between Mr. Scott and Mr. Groody. The discussion was directed to *In re Schneller*, 158 USPQ 210 (CCPA) and whether that decision will necessitate a double patenting rejection in any of these cases. Mr Scott was asked whether a terminal disclaimer could be filed in all of the 327 related cases to obviate a possible double patenting

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rejection in each of these cases over each other. Mr. Scott agreed to consider this.

An interview was held on December 13, 1995 between Mr. Scott and Mr. Groody regarding the terminal disclaimer question above. Mr. Scott proposed filing a terminal disclaimer in about 250 of the 327 cases over each other if the PTO would have each of the about 250 issue within 4 or 6 months of each other. Mr. Groody felt that the PTO would be unwilling to suspend prosecution in some cases just to have other related cases issue close to each other. No agreement was reached.

Two interviews were held between Mr. Scott and Mr. Groody on April 2, 1996. Mr. Scott pointed out that, in parent file 5,233,654, there had been a restriction requirement. After reviewing the file, Mr. Groody indicated that there would not be a Schneller double patenting rejection made in any case based on parent patent 5,233,654 and 5,335,277. The action recently sent out in 08/113,329 would be changed to reflect this point. Mr. Scott inquired whether a terminal disclaimer, in these applications, would have to be filed for all of the four Harvey patents (4,694,490; 4,704,725; 4,965,825; 5,109,414). Mr. Groody felt that all four should be disclaimed, if applicants elect to

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take that approach toward overcoming the double patenting rejections, because of the requirement in terminal disclaimers concerning common ownership. Mr. Scott indicated that in parent patent 4,965,825, there had been a multiplicity rejection. Mr. Groody will order the file, but felt that rejection would not overcome the Schneller double patenting rejections since the CCPA did not list this situation as an acceptable reason to file continuing cases. The Court limited its exception to "independent and distinct" claims. Mr. Groody acknowledged that the Board of Appeals may accept the multiplicity argument, but, in the absence of case law on this issue, he would still apply the Schneller rejections.

On June 10, 1996, Mr. Scott spoke with Mr. Groody on several topics. Related case 08/397,582 has been withdrawn from issue in Group 2200, and a new action will be mailed containing a double patenting rejection under *In re Schneller*. This application will now be examiner in Group 2600. Mr. Scott questioned whether applicants can withdraw the terminal disclaimer made in 397,582. Mr. Groody was unsure of the answer, but later checked with Mr. Orsino, who informed him that MPEP 1490 controlled.

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Mr. Groody still believes that 08/113,329 can be expedited at the Board. Mr. Scott can refer to the appeal brief to be filed in that case in responding to any application having a *Schneller* double patenting rejection.

A telephone interview was held on June 12, 1996 between Mr. Thomas Woolston and Marc E. Bookbinder representing the PTO. For S.N. 08/448,116, Mr. Woolston indicated that the supplemental preliminary amendment of Nov. 13, 1995 was incomplete and that a complete version of such would be filed shortly to perfect the submission as originally intended. Mr. Woolston also indicated that he intended to file a second supplemental preliminary amendment in this case bringing the total number of claims to 37.

Mr. Bookbinder indicated that the Group would like to have a complete grouping of applications in a manner that was submitted earlier for only a portion of the total filings. Mr. Woolston stated that such a grouping was available and that he would forward it to the Group as soon as possible.

Mr. Bookbinder requested that each future amendment filed be accompanied by an electronically readable version thereof. Mr. Woolston stated that he could provide a disk to include one or more amendments made to applications as they were filed.

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Mr. Woolston stated that he has reviewed actions that have been mailed and that he takes issue particularly with the double patenting rejections and the way In re Schneller has been applied. Mr. Bookbinder suggested that Mr. Woolston contact Mr. Groody of Group 2600 to discuss the particulars of the double patenting rejections since he was the author of those rejections.

On November 25, 1996, a telephone interview was held between Mr. Scott and Mr. Groody. Mr. Groody informed Mr. Scott that expedited processing at the Board for 113/329 would be arranged by the Office. No action on applicants' part was necessary. Applicants no longer had to submit a listing of related cases, since the examiners did not need that. Finally, application serial number 08/397,582, which has been withdrawn from issue, will be examined over all of the art cited in all of the later filed Harvey cases.

29. The art cited in the information disclosure statements submitted by applicants has been considered. The examiner initialed 1449 forms will be sent in a later action.




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30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Groody whose telephone number is (703) 308-5461.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

  
**ANDREW FAILE**  
**SUPERVISORY PATENT EXAMINER**  
**GROUP 2600**